UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

October 8, 2003

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

MEMORANDUM

SUBJECT: National Remedy Review Board Recommendations for the Iron Horse Park Superfund Site

FROM: JoAnn Griffith, Chair
National Remedy Review Board

TO: Susan Studlien, Acting Director
Office of Site Remediation and Restoration
EPA Region 1

Purpose

The National Remedy Review Board (NRRB) has completed its review of the proposed cleanup action for the Iron Horse Park Superfund Site in Massachusetts. This memorandum documents the NRRB's advisory recommendations.

Context for NRRB Review

The Administrator announced the NRRB as one of the October 1995 Superfund Administrative Reforms to help control response costs and promote consistent and cost-effective decisions. The NRRB furthers these goals by providing a cross-regional, management-level, "real time" review of high cost proposed response actions prior to their being issued for public comment. The board reviews all proposed cleanup actions that exceed its cost-based review criteria.

The NRRB evaluates the proposed actions for consistency with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and relevant Superfund policy and guidance. It focuses on the nature and complexity of the site; health and environmental risks; the range of alternatives that address site risks; the quality and reasonableness of the cost estimates

for alternatives; regional, state/tribal, and other stakeholder opinions on the proposed actions, and any other relevant factors.

Generally, the NRRB makes advisory recommendations to the appropriate regional decision maker. The region will then include these recommendations in the administrative record for the site, typically before it issues the proposed cleanup plan for public comment. While the region is expected to give the board's recommendations substantial weight, other important factors, such as subsequent public comment or technical analyses of response options, may influence the final regional decision. The board expects the regional decision maker to respond in writing to its recommendations within a reasonable period of time, noting in particular how the recommendations influenced the proposed cleanup decision, including any effect on the estimated cost of the action. It is important to remember that the NRRB does not change the Agency's current delegations or alter in any way the public's role in site decisions.

Overview of the Proposed Action

The Iron Horse Park (IHP) Superfund Site is located in Billerica, Massachusetts. The site is a 553-acre industrial complex that includes manufacturing and rail yard maintenance facilities, open storage areas, landfills, and wastewater lagoons. A long history of activities at the site, beginning in 1913, has contaminated soil, groundwater, and surface water. The site was listed on the NPL in 1984 and subsequently was divided into three Operable Units (OUs). Operable Unit 1, currently in the remedial action phase, consists of a former 15-acre wastewater lagoon area. Operable Unit 2, which is also in the remedial action phase, is a 60-acre landfill undergoing capping. Finally, OU 3 consists of the remainder of the IHP Superfund Site. It has an extensive wetland system and widespread contamination from many potential sources.

NRRB Advisory Recommendations

The NRRB reviewed the informational package for this proposal and discussed related issues with EPA Region 1 representatives Donald McElroy, Carol Tucker, and Larry Brill; and Massachusetts Department of Environmental Protection representatives Jay Naparstek and Janet Waldron, on August 28, 2003. Based on this review and discussion, the NRRB offers the following comments.

- The region's proposed remedy includes source area capping designed to address health risks from direct soil contact and groundwater ingestion. However, the information presented to the board did not adequately document lateral and vertical contaminant transport to wetlands and groundwater. Therefore, it was not clear how much the proposed capping would reduce risks to groundwater and wetlands sediments. The board recommends that the region evaluate the relative importance of infiltration and subsurface vertical and lateral flow for contaminant transport to groundwater and wetlands. If the analysis indicates that the proposed caps do not provide cost-effective risk reduction, the region may need to consider other options, such as hydraulic controls, alternative cap designs, and/or constructing a consolidated landfill. A conceptual site

model could provide a framework to examine infiltration, seasonal groundwater-surface water interaction, and lateral flow.

- As presented to the board, the wetland, pond, and canal sediment portion of the proposed remedy relied not on a site-specific risk assessment, but on literature benchmark screening criteria to determine the proposed cleanup levels for sediment contamination. The board also notes that the pathways for contaminant transport into sediments and surface water have not been adequately characterized (e.g., groundwater transport, overland flow, direct discharge). Therefore, the region's proposal to excavate sediments at a significant cost appears to be premature. Prior to such an action, the board recommends that the region evaluate site-specific risk and, where risk is established, develop site-specific cleanup levels, e.g., using a weight-of-evidence approach that includes sediment toxicity studies in each wetland area. The board is also concerned that without proper characterization of contaminant pathways, the potential for recontamination exists. For example, if groundwater presents a significant contaminant pathway to sediment or surface water, it may be necessary to address sediments and groundwater at the same time to avoid recontamination.

- The information presented to the board did not make clear whether contamination in groundwater is migrating offsite and might affect drinking water supplies. The board recommends that the region evaluate whether private wells may be contaminated and whether additional monitoring or other actions are appropriate.

- The information presented to the board did not provide any details on the type of institutional controls and associated costs proposed with the various alternatives. The board recommends that the Region include this information, in detail, in the decision documents.

- The board notes that the operation and maintenance (O&M) costs appear to be high compared to capital costs. In addition, the O&M costs are the same for a number of different alternatives for the same area of concern (the board would expect them to be different). For example, the contaminated soils area (AOC 5) has O&M costs of about $3.5 million for three alternatives -- institutional controls, monitored natural attenuation, and excavation with onsite stabilization. Further, for the same area, estimated O&M for excavation and onsite treatment using soil washing/chemical extraction is $10 million. The board recommends that the region reevaluate the O&M costs overall and include more detailed information in the decision documents.

- The board found that the information package prepared for the review of this cleanup proposal lacked some of the information necessary to evaluate goals and benefits of the various alternatives. In addition, the overall site cleanup strategy, including future use assumptions, is not clear in the draft proposed plan included in the board package. The board recommends that the decision documents more clearly explain the alternatives and how this operable unit fits into the overall cleanup strategy for the site.

- The board did not find information to indicate whether adequate evaluation of indoor exposure pathways was conducted. The board recommends that the Region evaluate and/or document the characterization performed for indoor exposure pathways, which may include vapor intrusion and contaminated dust.

The NRRB appreciates the region's efforts in working together with the potentially responsible parties, state, and community groups at this site. We encourage Region 1 management and staff to work with their regional NRRB representative and the Region 1 /9 Center in the Office of Site Remediation and Technology Innovation to discuss any appropriate followup action.

Thank you for your support and the support of your managers and staff in preparing for this review. Please call me at 703-603-8774 should you have any questions.

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